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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,300	10/12/2005	Taketoshi Usui	01197.0254	1095

22852 7590 01/06/2009

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EXAMINER	
MCCULLEY, MEGAN CASSANDRA	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
01/06/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,300	USUI ET AL.	
	Examiner	Art Unit	
	Megan McCulley	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/21/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6 and 9-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6 and 9-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3, 5-6 and 9-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishimura et al. (EP 0304503) in view of Yamada et al. (JP 2001156114). The English language equivalent, U.S. Pat. 6,512,184, of the Japanese document is used for the citations below.

Regarding claim 1: Ishimura et al. teaches a curing agent/hardener comprising: a core/powder of an amine compound that has at least one tertiary amino group, a reaction product of the amine compound and an epoxy resin as a capsule membrane/shell, a group capable of absorbing infrared rays of wave length 1630 to 1680 cm^{-1}, and a group capable of absorbing infrared rays of wave length 1680 to 1725 cm^{-1} on the surface of the core/powder, thereby being an intermediate layer between the core/powder and the capsule membrane/shell (abstract).

Because example 2 of Ishimura et al. is prepared the same way as example 2 of the instant application, using the same steps with essentially the same amount of reactants (see page 12 paragraph labeled Preparation of hardener), although not explicitly recited, it is inherent that the weight ratio of the core and the capsule

membrane formed is between 100:1 to 100:100. This is further evidenced because Ishimura et al. states that a shell has formed (page 13 lines 10-13 and Fig. 2).

Ishimura et al. does not disclose that the chlorine in the composition is not more than 400 ppm. However, Yamada et al. teaches an epoxy resin composition (col. 4 lines 36-50) with an encapsulated amine hardening agent (col. 5 lines 1-8) with contaminant chloride ions less than 100 ppm (col. 5 lines 39-45). Ishimura et al. and Yamada et al. are analogous art since they are both concerned with the same field of endeavor, namely epoxy resins with encapsulated latent amine curing agents. At the time of the invention a person having ordinary skill in the art would have found it obvious to combine the teachings of the low chloride content of Yamada et al. with the composition of Ishimura et al. and would have been motivated to do so for such desirable properties as decreased amount of trapped water in the resin and proper amounts of electroconductivity, as evidenced by Yamada et al. (col. 2 lines 9-43).

Regarding claims 2 and 3: While Ishimura et al. does not directly teach that the ^{13}C-NMR spectrum of the capsule membrane/shell ratio of a largest peak height between 37 to 47 ppm to a largest peak height between 47 to 57 ppm is not lower than 3 and not higher than 7, and the melt viscosity of the amine curing agent/hardener is not higher than 10 Pa·s at 160 °C, since all of the components are present in the composition it is implicit that the composition would have these properties. If it is applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' position; and (2) it would be the Office's position that

the application contains inadequate disclosure that there is no teaching as to how to obtain a composition with these properties.

Regarding claim 5: Ishimura et al. teaches the basic curing agent as set forth above. Ishimura et al. does not disclose that the chlorine in the composition is not more than 400 ppm. However, Yamada et al. teaches an epoxy resin composition (col. 4 lines 36-50) with an encapsulated amine hardening agent (col. 5 lines 1-8) with contaminant chloride ions less than 100 ppm (col. 5 lines 39-45). At the time of the invention a person having ordinary skill in the art would have found it obvious to combine the teachings of the low chloride content of Yamada et al. with the composition of Ishimura et al. and would have been motivated to do so for such desirable properties as decreased amount of trapped water in the resin and proper amounts of electroconductivity, as evidenced by Yamada et al. (col. 2 lines 9-43).

Regarding claim 6: Reference example 1 of Ishimura et al. teaches reacting an epoxy resin with an amine compound to obtain the core/powder amine compound.

Ishimura et al. does not disclose that the chlorine in the composition is not more than 400 ppm. However, Yamada et al. teaches an epoxy resin composition (col. 4 lines 36-50) with an encapsulated amine hardening agent (col. 5 lines 1-8) with contaminant chloride ions less than 100 ppm (col. 5 lines 39-45). At the time of the invention a person having ordinary skill in the art would have found it obvious to combine the teachings of the low chloride content of Yamada et al. with the composition of Ishimura et al. and would have been motivated to do so for such desirable properties

as decreased amount of trapped water in the resin and proper amounts of electroconductivity, as evidenced by Yamada et al. (col. 2 lines 9-43).

Regarding claim 9: A masterbatch is disclosed in Ishimura et al. (abstract) comprising 100 parts by weight of the curing agent/hardener and 10-50,000 parts by weight epoxy resin (page 3 lines 24-25).

Regarding claim 10: Ishimura et al. teaches 0.1 to 100 parts by weight of the masterbatch can be used to 100 parts by weight of an epoxy resin (page 9 lines 19-20).

Regarding claim 11: The composition can be mixed with other curing agents such as acid anhydrides (pg. 9 lines 24-39). Example 13 has 100 parts by weight epoxy, 90 parts by weight acid anhydride and 10 parts by weight masterbatch (pg. 18), which overlaps the claimed ranges.

Regarding claims 12, 16, and 20: Ishimura et al. teaches using the compositions for IC chip sealing, which uses anisotropic conductive materials (pg. 10 lines 21-31).

Regarding claims 13, 17, and 21: Ishimura et al. teaches using the compositions for the bonding of printed circuit boards, which uses conductive adhesive materials (pg. 10 lines 21-31).

Regarding claims 14, 18, and 22: Ishimura et al. teaches using the compositions for bonding headlight devices, which uses insulating adhesive material (pg. 10 lines 21-31).

Regarding claims 15, 19, and 23: Ishimura et al. teaches using the compositions for impregnating/encapsulating motor coils (pg. 10 lines 21-31).

Response to Arguments

Applicant's arguments filed October 21, 2008 have been fully considered but they are not persuasive, because:

A) Applicant's argument that the teaching of Yamada et al. of lowering the chlorine content in an epoxy is not directed toward the capsule membrane is not persuasive. Yamada et al. teaches the benefits of reducing the chlorine impurities in epoxy resins. A person having ordinary skill in the art would have recognized these benefits relating to all the epoxy resins in a composition; i.e. the lower chlorine content in the composition overall would be beneficial. Therefore, a person having ordinary skill in the art would be motivated by the teaching of Yamada et al. to modify all of the epoxies disclosed in Ishimura et al., including the epoxy for the capsule membrane. This is so the deleterious effects of the chlorine are not included in the composition. Further, the mere purity of a product, in the case the product of Ishimura et al., does not render the product unobvious. See MPEP 2144.04 VII.

B) In response to applicant's argument that Yamada et al. fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., providing a compact shell without a crosslink defect or achieving compatibility of the hardening property and storage stability by limiting the total amount of chlorine in the epoxy resin) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Megan McCulley whose telephone number is (571)270-3292. The examiner can normally be reached on Monday - Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796

/M. M./
Examiner, Art Unit 1796